

## Load Sensing Circuit For A Power MOSFET Switch

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### ABSTRACT OF THE DISCLOSURE

A circuit for sensing a voltage across a power switch includes a transmission gate, a low pass filter and a comparator. The power switch is controlled by a control signal for turning the power switch on and off to generate a switching voltage at a first current handling terminal of the power switch. The transmission gate is turned on whenever the power switch is turned on to sample the voltage across the power switch when the power switch is turned on. The sampled voltage is filtered by the low pass filter to remove high frequency transients. Finally, the comparator compares the filtered voltage to a reference voltage. The comparator provides an output signal having a first value when the filtered voltage is less than the reference voltage. The circuit can be used as a load sensing circuit to sense the load condition under which the power switch is being operated.